



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,777	06/20/2001	Rogelio Peon	PEON 5-1-3	3651
7590 05/24/2005				
William H. Murray, Esquire Duane, Morris & Heckscher LLP One Liberty Place Philadelphia, PA 19103-7396		EXAMINER MEEK, JACOB M		
		ART UNIT PAPER NUMBER 2637		

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,777

Applicant(s)

PEON ET AL.

Examiner

Jacob Meek

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 3 - 5, 15 - 17 is/are allowed.
6) ☒ Claim(s) 1, 2, 13 and 14 is/are rejected.
7) ☒ Claim(s) 6 - 12, 18 - 20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06/20/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on December 21, 2004 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 2, 13, and 14 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because submitted drawings did not appear with other scanned amendment documents. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushirokawa et al (US-5,228,058).

With regard to claim 1, Ushirokawa discloses an apparatus for processing an equalizer output signal formed by transmitting a digital signal over a channel and passing transmitted signal through an adaptive equalizer (see figure 3, 302 and column 2, lines 13 – 27)

comprising: a correlator circuit block that detects an incorrect convergence of the adaptive equalizer by summing a plurality of consecutive symbols and outputs a correlator signal (see figure 2, 203 and column 6, lines 38 – 55), and a corrector filter that receives equalizer output signal and correlator output signal and applies a correction to the equalizer output signal based on the correlator output signal to form a corrected signal that is substantially a time delayed copy of the input signal (see column 6, lines 9 – 37). Ushirokawa is silent with respect to AMI signals. Ushirokawa states that his invention is useful digital transmission signals experiencing ISI. It would have been obvious to one of ordinary skill in the art at the time of invention that AMI is a form of digital transmission signals prone to ISI.

With regard to claim 2, Ushirokawa discloses an apparatus wherein correlator circuit block further comprises means for calculating an estimate of an autocorrelation function of equalizer output signal (see column 6, lines 38 – 55 where this is interpreted as equivalent).

With regard to claims 13 and 14, the steps claimed as method are nothing more than a restatement of the function of the apparatus of claims 1 and 2 and therefore would have been obvious given the aforementioned rejection of claims 1 and 2 above.

Allowable Subject Matter

5. Claims 3 – 5, and 15 – 17 are allowed.
6. Claims 6 - 12, and 18 - 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Cited Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McAuliffe (US-3,614,623), Cafiero (US-4,584,690), Huellwegen (US-5,105,440), Stakely (US-6,271,698), and Feldbaumer (US-

6,570,916) all disclose apparatus for the adaptive equalization of digital signals germane to applicant's area of invention.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

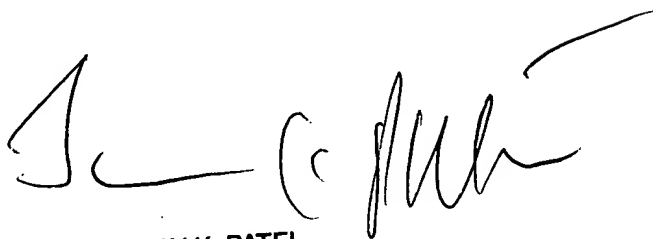
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2637

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM



JAY K. PATEL
SUPERVISORY PATENT EXAMINER